Amendments to the Specification:

Please replace the paragraph beginning on page 3, line 14 with the following rewritten paragraph:

The most common single scale methods make use of contrast stretch windowing as described in the work of Aylward et al (see S. R. Aylward, B. M. Hemminger, and E. D. Pisano, "Mixture modeling for digital mammogram display and analysis," *Proc. Fourth Int. Workshop on Digital Mammography*, [Kluwer, Bonston], N. Karssemeijer et al Eds, Nijmegen, Netherland, pp. 305-312, 1998). Because windowing is applied to one of the segmented image regions, such as uncompressed ~~fat, fat,~~ dense <u>fat</u> and muscle, at the expense of contrast reduction in other segments, a consequence of single scale methods is that the contrast in the area of dense breast tissue is increased at the cost of decreased contrast in the over-penetrated (darker) areas of the image, e.g., near the skin line. Mutihac et al (see R. Mutihac, A. A. Colavita, A. Cicuttin and A. E. Cerdeira, "Maximum entropy improvement of X-ray digital mammograms," *Proc. Fourth Int. Workshop on Digital Mammography* [Kluwer, Bonston], N. Karssemeijer et al Eds, Nijmegen, Netherland, pp. 329-336, 1998) describe a contrast enhancement method by maximizing entropy of the digital mammograms. This procedure requires prior knowledge to be stated as a set of constraints on the input image, for example, noise is independent of pixel value. For digital mammograms, this assumption is often invalid because of a strong correlation among neighboring pixels. These methods also require reliable estimates of standard deviations that are based on theoretical or experimental data. Morrow et al (see W. M. Morrow, R. B. Paranjape, R. M. Rangayyan, and J. E. Leo Desautels, "Region-based contrast enhancement of mammograms," *IEEE Transactions on Medical Imaging*, vol. 11, no. 3, pp. 392-405, 1992) describe another contrast enhancement method based on region growing. The region growing is initiated at the area of interest in test mammogram images that were identified with the aid of an experienced radiologist. A tolerance parameter k is selected such that if a pixel value is between $(1-k)f$ to $(1+k)f$, then the pixel belongs to the region, where f is the gray value of the starting pixel. A new contrast is then reassigned based on the property of the region. Because the initial seed is selected manually, the practical utility of this method is reduced.